

CUSTOMER NO.: 24498
Serial No.: 10/511,638
Office Action dated: 12/07/07
Response dated: April 22, 2008

PATENT
PU020126

Remarks/Arguments

The Office Action mailed December 7, 2007 has been reviewed and carefully considered.

The drawings have been amended to correct some minor discrepancies in the same. Replacement sheets 1 and 2 have been submitted with this response. No new matter has been added by these amendments.

The amendments to the specification have been made to correlate the use of reference numerals to the drawings. No new matter has been added by these amendments.

Claims 4, 10, 15 and 21 have been canceled without prejudice. Claims 1, 9, 12, 16 and 20 have been amended. Claims 1-3, 5-9, 11-14 and 16-20 are now pending in this application.

Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

Claims 1, 3-9, 10-12 and 14-21 stand rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 6,421,387 to Rhee. In asserting this rejection, the Examiner has cited Rhee at Col. 6, line 63 – Col. 7, line 9, Col. 7, lines 19-37, and Col. 8, line 33 – Col. 9, line 30). In these sections, Rhee discusses the use of Forward error correction (FEC) codes, and in particular, an example is used for a Reed Solomon Erasure correcting code (RSE) Code in combination with recovery from error spread using continuous updates (RESCU).

However, nowhere in the cited sections, nor in the entire disclosure, does Rhee disclose or suggest a Forward Erasure Correction (FEC) encoder as recited by the present principles. It is clear from the teachings of Rhee, that no such additional encoder (and corresponding decoder) have been contemplated. In fact, Rhee teaches away from this concept at Col. 2, lines 45 et seq., where Rhee states:

"According to one aspect, the present invention includes a new FEC technique for interactive video that combines FEC with RESCU. By incorporating this FEC technique, RESCU can perform very effectively in an environment where little or no feedback is available, or transmission delay is too high for retransmission to be effective. The FEC scheme according to the present invention clearly differs from the conventional schemes in that FEC packets can be transmitted over a longer period than a single frame interval without introducing delay in frame playout times. Since RESCU uses FEC packets to restore

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buffered reference frames (referred to herein as periodic frames), FEC packets can be transmitted over a relatively longer period, interleaving with the packets of other (non-periodic) frames to help reduce the effect of bursty losses."

As stated in Applicant's description of their invention at page 7, line 7 – line 21, the FXC Coding of the present invention is "added" to other channel coding methods that protect against impulse noise. For example, the FXC coding of the present invention can be added to the communication system's interleaving and Reed Solomon (RS) Forward error correction (FEC) coding. Applicant further goes on to state "In contrast, existing RS FEC protects against random bit or byte errors, not erasures, inside a given packet, with the samples taken from nearby points in time."

With respect to amended claims 1 and 12, and contrary to the Examiner's assertion, Rhee fails to disclose or suggest the concept of multiplexing the information superpackets and the FXC parity super packets "prior to" transmission. In fact, at Col. 7, lines 17-19, Rhee states "The transmission time of each parity packet is evenly spaced over the period, interleaving with the packets of other frames." From this passage, it is clear that Rhee does not contemplate the idea of multiplexing the information superpackets with the parity superpackets *before or prior* to the actual transmission, and in fact, actually teaches away from the claimed invention. In view of this aspect of the claimed invention, Rhee neither anticipates, nor renders obvious the present invention. Reconsideration and withdrawal of the rejection is respectfully requested.

With respect to claims 9 and 20, these claims have been amended to include the concept of the FXC sync transport packets recited in the present application. A review of Rhee does not disclose or suggest the use of FXC sync transport packets as claimed herein. In fact, there is no mention whatsoever of sync transport packets used by the system of Rhee. The cited portions of the application (i.e., Col 5, lines 38-55 and Col. 6, line 63 – Col. 7, line 9) do not disclose, nor remotely suggest the concept of using sync transport packets at all. Reconsideration and withdrawal of the rejection is respectfully requested.

The remaining dependent claims are believed to be patentable based on their dependency from claims 1, 9, 12 and 20.

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Claims 2 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rhee, in view of U.S. Patent No. 6,145,109 to Schuster et al. Claims 2 and 13 depend from claims 1 and 12, respectively. As such, these claims are patentable for at least the reasons cited above with respect to the patent to Rhee.

In view of the foregoing, Applicant respectfully requests that the rejections of the claims set forth in the Office Action of December 7, 2007 be withdrawn, that pending claims 1-3, 5-9, 11-14 and 16-20 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

Please charge the \$460.00 fee for the Petition for the Two Month Extension, and any other costs that may be associated with the filing of this Response, to Deposit Account No. 07-0832.

Respectfully submitted,

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Attachments - Drawing Replacement
Sheets

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